

APPENDIX

MEASUREMENT UNITS

Scribner is the only board foot scale used in this report, but some mills use more than one scale. Others use cubic scale, although there appears to be no strong shift toward the use of cubic measurement.

Lumber, veneer and plywood mills relied almost entirely on Scribner scale. Pulp and board mills used tons, cords and cubic measure as well as board foot scale. Although the Export; Shake and Shingle; and Pole, Post and Piling mills made extensive use of Scribner scale, they also reported a variety of other measurement units: cords, bolts, pieces, shake blocks, squares, linear feet, etc.

Board foot is the unit of measure used in this report for all wood consumption. An exception is allowed for purchased or transferred

veneer consumed by plywood mills (square feet, 3/8-inch basis) and chips and other residue consumed by pulp mills (bone dry tons).

The following measurement units were used:

- o Board foot lumber tally is used for Lumber production.
- o Square feet 3/8-inch basis is used for Plywood and Veneer production.
- o Square (10'x10' area coverage) is used for Shake and Shingle production.
- o Board foot Scribner is used for Log Export shipments and for Pole, Post and Piling production.

Bolts, pieces and shake blocks were generally converted to Scribner scale by the operator. Measurement equivalencies are shown below.

Unit Conversion Used in this Report

Lumber Industry

1.3 board feet	= 1 board foot, Scribner (Approximately)
lumber tally	

Veneer and Plywood (3/8-inch basis)

2.5 square feet	= 1 board foot, Scribner
1 square foot	= 0.885 square meters
1,130 square feet	= 1 cubic meter

Pulp and Board

1 cord	= 500 board feet	= 2.41 cubic meters(S.W.E.) ¹
1 short ton	= 500 board feet	= 0.907 metric tons
200 cubic foot units	= 1 bone dry ton	= 0.907 metric tons
1 bone dry unit	= 1.2 bone dry tons	= 1.088 metric tons

Shake and Shingle

10 squares ²	= 1,000 board feet	= 4.7 cubic Meters(S.W.E.) ¹
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Pole, Post and Piling

1 cubic foot	= 6 board feet
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All Industries

<u>211.9 board feet</u>	= 1 cubic meter
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¹ (S.W.E.) = solid wood equivalent

² One square covers 100 square feet

MILL RESIDUES

Residue production figures in this report are calculated, not reported values. The mills were asked merely to indicate on a percent basis the uses made of their various residues. These percents were applied to residue estimates developed using the following residue factors:

Softwood Sawmill Residues†

Average quantity of residues developed from producing 1,000 board feet of lumber.

<u>Item</u>	<u>Solid volume††</u> (Cubic feet)	<u>Dry weight</u> (Tons)	<u>Residue type</u>
Wood residue			
Slabs, edgings, sawmill trim	36	24.8	0.486 } Coarse
Planer trim	3	2.1	0.041 }
Sawdust	16	11.0	0.216 Fine
Planer shavings	16	11.0	0.216 Medium
Total wood residue	71	48.9	0.959
Bark	17	11.7	0.258 Bark
Lumber	57	39.4	0.864
Whole log	145	100.0	2.081

†Based on data from Oregon mills compiled by Oregon State University, School of Forestry, in 1967, and adjusted for changes in lumber standards by James O. Howard, Resource Analyst, Pacific Northwest Forest and Range Experiment Station. Dry weights adjusted for different species mix utilized in Washington.

††Green Volume.

Softwood Plywood Residues†

Average quantity of residue developed in producing the equivalent of 1,000 square feet of $\frac{1}{8}$ -inch plywood (rough basis).

<u>Plywood residue</u>	<u>Solid volume</u> (Cubic feet††)	<u>Dry weight</u> (Tons)	<u>Residue type</u> (Percent)
Wood residue			
Log trim	3.4	0.048	4.2 }
Cores	6.3	0.088	7.8 Coarse
Veneer clippings, roundup & spur trim	19.3	0.270	23.7 }
Dry trim & layup loss	6.3	0.088	7.8 Medium
Sander dust	1.6	0.022	1.9 Fine
Total wood residue	36.9	0.516	45.4
Bark	8.8	0.132	11.6 Bark
All residue	45.7	0.648	57.0
Plywood	34.9	0.489	43.0
Whole log	80.6	1.137	100.0

†All residue factors except sander dust and bark from data collected via various mill studies by the Characterization and Utilization of Western Softwoods and Forest Residues Project, Pacific Northwest Forest and Range Experiment Station, and compiled by James O. Howard, Resource Analyst. Sander dust and bark factors based on data from Oregon mills compiled in 1967 by Oregon State University, School of Forestry. Because of the similarity of mills and species used, no adjustment was made in applying these data to Washington.

††Green Volume.

Shingle Mill Residues†

Average quantity of residue developed in utilizing 1,000 board feet of logs, Scribner scale, or in producing the equivalent volume of 10 squares.

Shake and shingle residue

	Solid volume		Dry weight (Tons)
	(Cubic Feet)	(Percent)	
Shingles:			
Coarse	23	13.7	0.22
Fine	78	46.8	0.75
Bark	19	11.5	0.28
Shakes:			
Coarse	23	13.7	0.22
Fine	24	14.5	0.23
Bark	19	11.5	0.28

†From information provided by the Red Cedar Shingle Bureau

Hardwood Sawmill Residues†

Average residue developed from producing 1,000 board feet of lumber using a narrow kerf bandsaw.

<u>Item</u>	<u>200 cu. ft.</u> (Units)	<u>Dry weight</u> (Tons)	<u>Residue type</u>
Wood residue			
Slabs, edgings, sawmill			
Trim & planer trim	0.71	0.60	Coarse
Planer shavings	0.26	0.22	Medium
Sawdust	0.27	0.23	Fine
Bark	0.40	0.34	Bark

†Based on information furnished by Northwest Hardwoods, Inc.

SAW MILL QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

SAW MILL Questionnaire

(Information on individual plants will be held confidential)

**FOR OFFICE
USE ONLY**

1. Mill Identity		3. Wood Consumption During 1982 (If not in Scribner, please indicate scale and conversion)																							
Firm Name _____		a. Log Consumption _____,000 board feet net scale																							
Address Street or P. O. Box _____		Percent of log consumption from dead trees _____ %																							
City _____ State _____ Zip Code _____		Percent of log consumption of utility grade* _____ %																							
Mill Location City _____ County _____		b. Peeler cores _____ (Units)																							
Prepared by _____		c. Cants _____ Lumber _____ Other _____ (Units)																							
Name of Mill Manager _____ Phone # _____		Specify log scale used if other than Scribner and conversion factor, if appropriate: _____																							
Date _____		*Utility logs - Less than Number 3 sawlogs in grade or having the following minimum specifications: 6 inch diameter, 12 foot length, 50+ percent gross scale chippable.																							
4. Mill Characteristics		4. Total Log Inventory:																							
Hours per shift _____ Average number of shifts per day _____		(Beginning of Year) 1/01/82 _____,000 Board feet																							
Maximum capacity per shift _____,000 board feet lumber tally.		(End of Year) 12/31/82 _____,000 Board feet																							
Days operated during 1982 _____		5. Log Consumption by Species During 1982																							
Years mill has been in present location _____ Under present ownership _____		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">Douglas fir</th> </tr> <tr> <td colspan="2">Hemlock</td> </tr> <tr> <td colspan="2">True firs</td> </tr> <tr> <td colspan="2">Spruce</td> </tr> <tr> <td colspan="2">Ponderosa pine</td> </tr> <tr> <td colspan="2">Lodgepole pine</td> </tr> <tr> <td colspan="2">Western red cedar</td> </tr> <tr> <td colspan="2">Other conifers</td> </tr> <tr> <td colspan="2">Western hardwoods</td> </tr> <tr> <td colspan="2">Other hardwoods</td> </tr> <tr> <td colspan="2" style="text-align: right;">100 %</td> </tr> </table>		Douglas fir		Hemlock		True firs		Spruce		Ponderosa pine		Lodgepole pine		Western red cedar		Other conifers		Western hardwoods		Other hardwoods		100 %	
Douglas fir																									
Hemlock																									
True firs																									
Spruce																									
Ponderosa pine																									
Lodgepole pine																									
Western red cedar																									
Other conifers																									
Western hardwoods																									
Other hardwoods																									
100 %																									
Type of Head Rig (Check those that apply)		Percent of Total Production From Each Type																							
Circular <input type="checkbox"/>		10 _____ %																							
Band <input type="checkbox"/>		11 _____ %																							
Gang <input type="checkbox"/>		12 _____ %																							
Chipping <input type="checkbox"/>		13 _____ %																							
Scrapp <input type="checkbox"/>		14 _____ %																							
		15 _____ %																							
		16 _____ %																							
		17 _____ %																							
		18 _____ %																							
		19 _____ %																							
Equipment operated during 1982 (check those that apply)																									
Burner <input type="checkbox"/>		Planer <input type="checkbox"/>																							
Band <input type="checkbox"/>		Chipper <input type="checkbox"/>																							
Gang <input type="checkbox"/>		Kiln <input type="checkbox"/>																							
Chipping <input type="checkbox"/>		Barker <input type="checkbox"/>																							
Scrapp <input type="checkbox"/>																									
Minimum diameter of log used _____ inches.																									
Is there a retail yard at this mill location? Yes <input type="checkbox"/> No <input type="checkbox"/>																									
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b. County of Origin (Washington)

	%
49	
50	
51	
52	
53	
54	
55	
<u>From Outside Washington</u>	
	100 %

c. Age Group

	%
Old Growth (100 Years +)	
Young Growth	
	100 %

d. Ownership Origin

State	%
U.S. Forest Service*	
BLM	
Other Public (Indian, etc.)	
Forest Open Supply	% (from timberlands owned by your company)
Industry Other Supply	% (from other forest industry timberlands)
Farmer & Misc. Private	
	100 %

*Name of
National
Forest

e. 1982 Lumber Production:

Produced _____,000 bf lumber tally	Hardwood	Produced _____,000 bf lumber tally	Hardwood
Green		Green	
Kiln-dried		Kiln-dried	
Air-dried		Air-dried	
Surfaced		Surfaced	
Rough		Rough	
	100 %		100 %
			100 %
			100 %
			100 %

d. Disposition of Plant Residues

Indicate residue by type as a percent.

USED	Coarse*	Sawdust	Shavings	Bark
For plant fuel	81 %	82 %	83 %	84 %
Sold for fuel	85 %	86 %	87 %	88 %
For pulp (incl. export)	89 %	90 %	91 %	92 %
For board	93 %	94 %	95 %	96 %
For other purposes	97 %	98 %	99 %	100 %
UNUSED				
Burned	102 %	103 %	104 %	105 %
Unburned	105 %	106 %	107 %	108 %
	100%	100%	100%	100%

*Includes slabs, edgings, sawmill trim, and planer trim.

9. If you desire to receive a copy of the Mill Survey report resulting from this study, please check here ().

10. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

1. Daily per shift production class: under 15 MBF, 15 to 29 MBF, 30 to 39 MBF, 40 to 49 MBF, over 50 MBF
2. Number of shifts per day
3. Species processed
4. Maximum and minimum log diameter limits
5. Type of largest head rig
6. Retail yard - () Yes () No
7. Does your mill presently export products abroad? () Yes () No
- If your mill does not export, is your firm interested in exporting? () Yes () No

- () Permission granted to place the selected information in the directory.
- () Permission granted, but do not include the circled items on the above list.

Thank you for your help with this questionnaire. When you have answered the questions as completely as possible, please fold this form, enclose it in the postage paid envelope provided and mail it.

VENEER AND PLYWOOD QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Veneer and Plywood Questionnaire

(Information on individual plants will be held confidential)

FOR OFFICE USE ONLY			
1. Mill Identity			
Firm Name _____	Prepared by _____		
Address _____	Name of Mill Manager _____		
City _____ State _____ Zip Code _____	Phone # _____ Date _____		
Mill Location - City _____ County _____			
2. Mill Characteristics			
Hours per shift _____	Average number of shifts per day _____		
Operations: Veneer only <input type="checkbox"/> Layup only <input type="checkbox"/>	Veneer and Layup <input type="checkbox"/>		
Maximum veneer capacity per shift _____	000 sq. ft. 3/8 inch basis.		
Maximum layup capacity per shift _____	000 sq. ft. 3/8 inch basis.		
Days operated during 1982 _____			
Years mill has been in present location _____			
Years under present ownership _____			
Lathe diameter limit (maximum log size) _____	inches.		
Minimum diameter of log used _____	inches.		
Equipment:			
4-foot lathe <input type="checkbox"/>	slicer <input type="checkbox"/>	cold press <input type="checkbox"/>	veneer chipper <input type="checkbox"/>
8-foot lathe <input type="checkbox"/>	burner <input type="checkbox"/>	hot press <input type="checkbox"/>	core chipper <input type="checkbox"/>
Average core size _____		inches.	
Is there a retail yard at this mill location? Yes <input type="checkbox"/>		No <input type="checkbox"/>	
3. Wood Consumption During 1982 (If not in Scribner, please indicate scale and conversion)			
a. Log consumption _____	000 board feet net scale.	Percent of log consumption from dead trees _____ %.	Percent of log consumption of utility grade* _____ %.
		Following minimum specifications: 6 inch diameter, 12 foot length, 50 + percent gross scale chippable.	

- b. Purchased or transferred in veneer _____,000 sq. ft. 3/8 inch.
Specify log scale used if other than Scribner and conversion factor,
if appropriate;

4. Total Log Inventory:	
Beginning of Year) _____	1/01/82 _____,000 Board feet
(End of Year) _____	12/31/82 _____,000 Board feet
5. Log Consumption by Species During 1982	
Douglas fir	% _____
Hemlock	% _____
True firs	% _____
Spruce	% _____
Ponderosa pine	% _____
Lodgepole pine	% _____
Western redcedar	% _____
Other conifers	% _____
Western hardwoods	% _____
Other hardwoods	% _____
100 %	
6. Origin of Logs Consumed During 1982	
a. State or Province of Origin	
Washington	% _____
Oregon	% _____
Idaho	% _____
British Columbia	% _____
Other	% _____
b. County of Origin (Washington)	
From Outside Washington	% _____
100 %	% _____
c. Age Group	
Old Growth (100 Years +)	% _____
Young Growth	% _____
100 %	

*Utility logs - less than Number 3 sawlogs in grade or having the
following minimum specifications: 6 inch diameter, 12 foot length,
50 + percent gross scale chippable.

102	103
104	105
106	107

d. Ownership Origin

State	\$
U.S. Forest Service*	\$
BLM	\$
Other Public (Indian, etc.)	\$
Forest Own Supply	\$ (from timberlands owned by your company)
Industry Other Supply	\$ (from other forest industry timberlands)
Farmer & Misc. Private	\$
	100 \$

*Name of National Forest

\$:	\$:
\$:	\$:
61	62
63	64
65	66

7. 1982 Veneer and Plywood Production

Veneer for sale or transfer _____,000 sq. ft. 3/8 inch ____ 1 inch ____
 Plywood _____,000 sq. ft. 3/8 inch ____ 1 inch ____

d. Ownership Origin

State	\$
U.S. Forest Service*	\$
BLM	\$
Other Public (Indian, etc.)	\$
Forest Own Supply	\$ (from timberlands owned by your company)
Industry Other Supply	\$ (from other forest industry timberlands)
Farmer & Misc. Private	\$
	100 \$

*Name of National Forest

9. Percent Distribution by State of all Veneer Sold or Transferred

Washington	%
California	%
Idaho	%
British Columbia	%
Oregon	%
Other	%

10. If you desire to receive a copy of the Mill Survey report resulting from this study, please check here

7. 1982 Veneer and Plywood Production

Indicate disposition of residue by type as a percent.

Log trim,
Spur roundup,
Veneer clip

Core	Panel veneer	Reject veneer	Sander dust	Bark
67%	68%	69%	70%	71%
72%	73%	74%	75%	76%
77%	78%	79%	80%	81%
82%	83%	84%	85%	86%
87%	88%	89%	90%	91%

USED

For plant fuel	67%	68%	69%	70%	71%
Sold for fuel	72%	73%	74%	75%	76%
For pulp	77%	78%	79%	80%	81%
For board	82%	83%	84%	85%	86%
For other purposes	87%	88%	89%	90%	91%

UNUSED

Burned	32%	33%	34%	35%	36%
Unburned	97%	98%	99%	100%	100%
	100%	100%	100%	100%	100%

DP 37502 (10-82) VP

DP 37502 (10-82) VP

Page 4

11. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

1. Daily per shift production class converted as follows:
under 15 MBF, 15 to 29 MBF, 30 to 39 MBF, 40 to 49 MBF,
over 50 MBF
2. Number of shifts per day
3. Species processed
4. Maximum and minimum log diameter limits
5. Type of plant
6. Lathe and press equipment
7. Retail yard - Yes No
8. Does your mill presently export products abroad? Yes No
If your mill does not export, is your firm interested in exporting?
 Yes No

Thank you for your help with this questionnaire. When you have answered the questions as completely as possible, please fold this form, enclose it in the postage paid envelope provided and mail it.

Page 3

PULP AND BOARD MILL QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Pulp and Board Mill Questionnaire

(Information on individual plants will be held confidential)

1. Mill Identity

Firm Name _____
 Prepared by _____
 Date _____
 Name of Mill Manager _____
 Address Street or P. O. Box _____
 Phone Number _____
 City State Zip Code _____
 Mill Location City _____ County _____

2. Mill Characteristics

a. Operation (Use a different form for each type of operation)

BOARD MILL	Hardboard _____
	Particleboard _____
	Insulation board _____

b. Production Capacity

BD Tons/24 hrs. _____
 units, if different _____
 Million sq. ft./yr. _____
 1/8" _____, 1/2" _____, 3/4" _____

c. Mill Production in 1982

Newsprint _____ (tons)	Hardboard _____ (Million sq. ft./yr. _____ basis)	Logs _____ %
Bleached Papers _____ (tons)	Million sq. ft./yr. _____ basis	Chips from Roundwood Chipping Plants _____ %
Unbleached (Not newsprint) _____ (tons)	Particleboard _____ (Million sq. ft./yr. _____ basis)	Hemlock _____ %
Market pulp _____ (BD tons)	Insulation board _____ (Million sq. ft./yr. _____ basis)	True firs _____ %
Other Paper Products _____ (tons)		Spruce _____ %
		Ponderosa pine _____ %
		Lodgepole pine _____ %
		Western redcedar _____ %
		Other softwoods _____ %
		Western hardwoods _____ %
		Other hardwoods _____ %
		Total _____ %
		100 _____ %

15	16	17	18	19	20	21	22	23	24
INCLUDE ONLY MATERIALS USED IN THE PRODUCTION PROCESS IN ITEMS b-h; INCLUDE MATERIALS USED AS FUEL UNDER 1.									
a. Log Consumption _____ ,000 board feet gross scale Percent of sound logs from dead trees _____ %. Percent of utility logs and cordwood _____ %.	b. Chips from mill residue (sawmill, plywood and veneer) specify units used	c. Chips from other sources (roundwood chipping plants) specify units used	d. Sawdust specify units used	e. Shavings specify units used	f. Bark specify units used	g. Wastepaper specify units used	h. Market pulp specify units used	i. Total tons of hog fuel specify units used	j. Other _____ %
3. Wood Consumption During 1982 (see page 4 for definitions)									
4. Consumption by Species During 1982 INCLUDE ONLY MATERIALS USED IN THE PRODUCTION PROCESS.									
5. Log Basis Specify basis: 1/8" _____, 1/2" _____, 3/4" _____									

5. Origin of Wood Consumed During 1982

a. State or Province of Origin	Logs	Chips from Roundwood Chipping Plants
Washington	x	
Oregon	x	
Idaho	x	
British Columbia	x	
Other	x	
	100 %	100 %
Washington	x	
Oregon	x	
Idaho	x	
British Columbia	x	
Other	x	
	100 %	100 %
b. Ownership Origin:		
State		
U.S. Forest Service*		
BLM		
Other Public (Indian, etc.)		
Forest Industry { Other Supply Farmer & Misc. Private		
Name of National Forest		

DEFINITIONS

Wood Consumption - Items a-h indicate the nature of the wood or fiber as it comes into your wood yard--before any processing or breakdown.

Utility Logs - Logs of lower quality than Number 3 sawlogs or usually having the following minimum specifications: 6 inches diameter, 12 foot length, 50 + percent of gross scale chipable.

Cordwood - Any log below the minimum specification stated for utility logs.

Specify log scale used if other than Scribner and conversion factor, if appropriate: _____

6. If you desire to receive a copy of the Mill Survey report resulting from this study, please check here ().

7. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

1. Daily per shift production class converted as follows:
under 15 MBF, 15 to 29 MBF, 30 to 39 MBF, 40 to 49 MBF,
over 50 MBF

2. Species processed

3. Type of plant

4. Does your mill presently export products abroad? () Yes () No
If your mill does not export, is your firm interested in exporting?
() Yes () No

() Permission granted to place the selected information in the Directory.
() Permission granted, but do not include the circled items on the above list.

Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form, enclose it in the postage paid envelope and mail it.

SHAKE AND SHINGLE MILL QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Shake and Shingle Mill Questionnaire

(Information on individual mills will be held confidential)

DID YOU OPERATE YOUR MILL EQUIPMENT DURING 1982?

Yes. Complete the questionnaire beginning with Question 1.

No. Do you still own your equipment?

Yes

No. Sold equipment or dismantled mill.

Never did own equipment

If you did not operate your equipment during 1982, only answer Question 1, then fold, place in envelope provided and mail.

**FOR OFFICE
USE ONLY**

1. Mill Identity
Firm Name _____
Address Street or P. O. Box _____
City _____ State _____ Zip Code _____
Mill Location City _____ County _____
Date _____

2. Mill Characteristics
Hours per shift _____
Average number of shifts per day _____
Years mill has been in present location _____
Years under present ownership _____

(circle one)
Shakes _____ squares or bundles
Shingle _____ squares or bundles
Hip & ridge _____ squares or bundles
Other (specify) _____ squares or bundles
Maximum output capacity per shift _____
Days operated during 1982 _____
Check equipment operated during 1982: chipper _____ barker _____ burner _____
Is there a retail yard at this mill location? Yes No

3. Wood Consumption During 1982 (See general definitions on page 4)

(If scale used is other than Scribner, indicate below)

a. Log Consumption _____,000 board feet net scale

Percent of logs from dead trees _____ %

Percent of utility grade _____ %

b. Other (Blocks, Bolts, Lumber, etc.) (Specify) (Amount) (Units)

Specify log scale used if other than Scribner and conversion factor, if appropriate: _____

IF YOU USED LOGS, COMPLETE QUESTIONS 4, 5, 6, and 7.

IF YOU ONLY USED BLOCKS, BOLTS, LUMBER, ETC., GO TO QUESTIONS 6 and 7.

4. Consumption by Species During 1982

	Log Consumption
Western red cedar	_____ %
Other	_____ %
	100 %

5. Origin of Logs Consumed During 1982

	Log Consumption
Washington	_____ %
Oregon	_____ %
Idaho	_____ %
British Columbia	_____ %
Other	_____ %
	100 %

b. County of Origin (Washington)

	% 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
28	_____ %
29	_____ %
30	_____ %
31	_____ %
32	_____ %
33	_____ %
34	_____ %
From Outside Washington	100 %

DP 37504 (10-82) SS

Page 2

DP 37504 (10-82) SS

Page 1

c. Age Group:

Old Growth (100 Years +)	<u>2</u>
Young Growth	<u>4</u>
	<u>100 %</u>

d. Ownership Origin:

State

U.S. Forest Service*

BLM

Other Public (Indian, etc.)

Forest

Industry

{ Own Supply

{ Other Supply

Farmer & Misc. Private

	<u>100 %</u>
	<u> </u>

General Definitions

- a. Utility logs - Logs of lower quality than Number 3 sawlogs and usually having the following minimum specifications: 6 inches diameter, 12 foot length, 50 + percent of gross scale.
- b. Other - Any other roundwood or other material (blocks, bolts, boards, etc.).

8. If you desire to receive a copy of the Mill Survey report, please check here ()

9. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

- 1. Daily per shift production class converted as follows:
under 15 MBF, 15 to 29 MBF, 30 to 39 MBF, 40 to 49 MBF,
over 50 MBF

- 2. Number of shifts per day

- 3. Type of product
- 4. Retail yard - () Yes () No
- 5. Does your mill presently export products abroad? () Yes () No
If your mill does not export, is your firm interested in exporting? () Yes () No

7. Disposition of Residue (Indicate residue by type as a percent)

If you used logs, explain use of coarse, sandust and bark.

If you only used blocks, bolts, lumber, etc., only explain use of coarse and sandust.

USED	Coarse	Sawdust	Bark
For plant fuel	<u>52</u> %	<u>53</u> %	<u>54</u> %
Sold for fuel	<u>55</u> %	<u>56</u> %	<u>57</u> %
For pulp (incl. export)	<u>58</u> %	<u>59</u> %	<u>60</u> %
For board	<u>61</u> %	<u>62</u> %	<u>63</u> %
For other purposes	<u>64</u> %	<u>65</u> %	<u>66</u> %
UNUSED			
Burned	<u>67</u> %	<u>68</u> %	<u>69</u> %
Unburned	<u>70</u> %	<u>71</u> %	<u>72</u> %

DP 37504 (10-82) SS
Page 3

DP 37504 (10-82) SS

Page 4

Thank you for your help with this questionnaire. When you have answered the questions as completely as possible, please fold, enclose it in the postage paid envelope and mail it.

POLE, POST AND PILING QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Post, Pole and Piling Questionnaire

(Information on individual firms will be held confidential)

**FOR OFFICE
USE ONLY**

1. Mill Identity

Firm Name _____

Prepared by _____

Name of
Mill Manager _____

Address Street or P. O. Box _____

Phone # _____

Date _____

City _____ State _____ Zip Code _____

Mill Location City _____ County _____

2. Mill Characteristics

Type of wood treatment used (if any) _____

Years mill has been in present location _____; under present ownership _____

Peeling Capacity **Treatment Capacity** **Specify Units**

daily or yearly
(circle one)

Posts	Poles	Piling	Days operated during 1982
_____	_____	_____	Peeling _____
_____	_____	_____	Treatment _____
_____	_____	_____	Barker _____
_____	_____	_____	Burner _____

12 _____
13 _____
14 _____
15 _____

16 _____
17 _____
18 _____

19 _____
20 _____
21 _____

22 _____
23 _____
24 _____

25 _____
26 _____
27 _____

28 _____
29 _____
30 _____

31 _____
32 _____
33 _____

3. Wood Consumption During 1982		Specify Units	
		ft. ³	1,000 cubic feet
		bark included	bark omitted
		ft. ³	ft. ³
a.	Posts	_____	_____
b.	Barkie poles	_____	_____
c.	Barkie piling	_____	_____
Specify log scale used if other than Scribner and conversion factor, if appropriate:			
4. Consumption by Species During 1982			
Species		Logs	
Douglas fir	_____	_____	%
Hemlock	_____	_____	%
True firs	_____	_____	%
Spruce	_____	_____	%
Ponderosa pine	_____	_____	%
Lodgepole pine	_____	_____	%
Western redcedar	_____	_____	%
Other conifers	_____	_____	%
Red alder	_____	_____	%
Other hardwoods	_____	_____	%
100 %			
5. Origin of Logs Consumed During 1982			
a.	State or Province of Origin:	%	
Washington	_____	_____	%
Oregon	_____	_____	%
Idaho	_____	_____	%
British Columbia	_____	_____	%
Other	_____	_____	%
100 %			

*IMPORTANT: If capacity numbers above are not given in MBF Scribner, please complete the following:

Average Length _____ Average Small End Diameter _____
Log Scale Used _____

b. County of Origin (Washington) Logs

34		%
35		%
36		%
37		%
38		%
39		%
40		%
From Outside Washington		%
Old Growth (100 Years +)	100	%
Young Growth	100	%
c. Age Group:	Logs	
4.1		
4.2		
d. Ownership Origin	Logs	
State		%
U. S. Forest Service*		%
BLM		%
Other Public (Indian, etc.)		%
Forest Industry	Own Supply	% (from timberlands owned by your company)
	Other Supply	% (from other forest industry timberlands)
Farmer and Misc. Private		%
*Name of National Forest		100 %
	:	
	:	

7. Disposition of Residue

Type of Residue, indicate disposition as a percent.	
USED	Coarse (wood) Bark
For Pulp (incl. export)	60 %
For Plant Fuel	61 %
Sold for Fuel	62 %
For Board	64 %
For Other Purposes	66 %
UNUSED	68 %
Burned	70 %
Unburned	72 %
	73 %
	100%

8. If you desire to receive a copy of the Mill Survey report resulting from this study, please check here ().

9. The Department of Natural Resources plans to publish a Forest Products Directory listing the name and address of each plant. Also, with your permission, we would like to include the following selected information concerning your plant:

1. Species processed
2. Type of Product
3. Treatment
4. Does your mill presently export products abroad () Yes () No
If your mill does not export, is your firm interested in exporting () Yes () No

50		%
51		%
52		%
53		%

Specify Units

ft. ³		
cu. yds.		
cu. ft.		
linear miles		
linear feet		

6. Quantity of 1982 Shipments

Treated	Untreated	
Posts		
Poles		
Piling		

() Permission granted to place the selected information in the Directory.
 () Permission granted, but do not include the circled items on the above list.
 Thank you for your help with this questionnaire. When you have answered the questions as fully as possible, please fold this form, enclose it in the postage paid envelope provided, and mail it.

LOG EXPORT QUESTIONNAIRE

WASHINGTON FOREST INDUSTRY SURVEY 1982

Log Export Questionnaire

(Information on individual firms will be held confidential)

**FOR OFFICE
USE ONLY**

1. Firm Identity prepared by _____

Firm Name _____
Address _____ Street or P.O. Box _____ Date _____
City _____ State _____ Zip Code _____

Phone # _____

2. Port of Operation _____

If MORE THAN ONE PORT OF OPERATION, USE ADDITIONAL FORMS WHICH WILL BE SUPPLIED PROMPTLY ON REQUEST (Phone Loren Gee in Olympia collect, 753-3841)

Data below this line should relate only to the Port listed above.

3. Years firm has used this Port for log export _____

a. Logs _____,000 Bd. Ft.
Percent of logs from dead trees _____ %
Percent of logs utility grade _____ %

b. Other _____ Specify _____

Specify log scale used if other than Scribner and conversion factor, if appropriate:

5. Export by Species During 1982	
Species	Logs
Douglas fir	_____ %
Hemlock	_____ %
True firs	_____ %
Spruce	_____ %
Ponderosa pine	_____ %
Lodgepole pine	_____ %
Western redcedar	_____ %
Other conifers	_____ %
Western hardwoods	_____ %
Other hardwoods	_____ %
	100 %

6. Origin of Logs Exported During 1982	
a. State or Province of Origin:	
Washington	_____ %
Oregon	_____ %
Idaho	_____ %
British Columbia	_____ %
Other	_____ %
	100 %

DP 37505 (10-82) EX

Page 1

Page 2

32	%	
33	%	
100	%	
*Name of National Forest		
41	%	
42	%	
43	%	
44	%	
45	%	
7. Residue Disposition during 1982 Percent of volume debarked before shipment _____%		
Indicate Disposition as a Percent		
Bark		
USED		
For Pulp (incl. export)	%	
For Plant Fuel	%	
Sold for Fuel	%	
For Board	%	
For Other Purposes	%	
UNUSED		
Burned	%	
Unburned	%	
51	%	
52	%	
100%	%	

32	%	
33	%	
100	%	
c. Age Group:		
Old Growth (100 Years +)	%	
Young Growth	%	
100	%	
d. Ownership Origin:		
State	%	
U. S. Forest Service*	%	
BLM	%	
Other Public (Indian, etc.)	%	
Forest { Own Supply	%	(from timberlands owned by your company)
Industry { Other Supply	%	(from other forest industry timberlands)
Farmer and Misc. Private	%	
100	%	
*Name of National Forest		
41	%	
42	%	
43	%	
44	%	
45	%	
7. Residue Disposition during 1982 Percent of volume debarked before shipment _____%		
Indicate Disposition as a Percent		
Bark		
USED		
For Pulp (incl. export)	%	
For Plant Fuel	%	
Sold for Fuel	%	
For Board	%	
For Other Purposes	%	
UNUSED		
Burned	%	
Unburned	%	
51	%	
52	%	
100%	%	

COMPUTER PROGRAMS USED FOR THIS REPORT

The automated Mill Survey System was developed on an IBM 370/158 MVS computer at the Washington Data Processing Service Center; Olympia, Washington.

The master file was built and edited by programs written in ANSI COBOL. Each mill type has its own independent edit program and was designed so that data changes could be made by Department of Natural Resources staff using on-line terminals. The calculations for the various tables and summaries were produced by separate ANSI COBOL programs. There are two programs for each table. One selects the data from the master file; the other program summarizes and formats the table.

The program package was designed to handle other states' data with minor modifications.

There is a complete documentation package for this system that consists of the following:

- o Warnier Diagram for each program
- o Sample input documents
- o Keypunch instructions
- o File descriptions for each file
- o Data description including edit criteria for each field.
- o Reasonableness edits for each input file
- o Edit error message tables for each input file
- o Report layouts of each output report
- o Sample output reports
- o Source program listings
- o Job Control Language listings for execution of system

WASHINGTON SUMMARY, 1982

Table 1 Number of mills in the timber industry, by industry, area and county

Economic Area and County	All industries	Industry				
		Veneer and plywood	Pulp and board ¹	Shake and shingle	Export ²	Pole, post and piling
Puget Sound						
Island	2	2	--	--	--	--
King	14	8	2	--	4	--
Kitsap	3	2	--	--	--	1
Pierce	43	10	3	2	4	23
San Juan	1	1	--	--	--	--
Skagit	27	5	--	--	21	1
Snohomish	74	21	1	2	14	34
Whatcom	15	6	1	2	4	1
Total	179	55	7	6	47	5
Olympic Peninsula						
Clallam	70	14	2	2	40	12
Grays Harbor	102	11	4	2	62	23
Jefferson	10	6	--	1	3	--
Lewis	28	11	2	--	15	--
Mason	9	5	1	--	2	--
Pacific	9	4	--	--	5	--
Thurston	11	2	3	--	1	4
Total	239	53	12	5	128	39
Lower Columbia						
Clark	14	7	1	2	2	1
Cowlitz	51	8	1	5	10	25
Klickitat	6	5	1	--	--	--
Skamania	4	2	2	--	--	--
Wahkiakum	4	1	--	--	3	--
Total	79	23	5	7	15	26
Central Washington						
Adams	--	--	--	--	--	--
Benton	--	--	--	--	--	--
Chelan	3	2	--	--	1	--
Douglas	--	--	--	--	--	--
Franklin	--	--	--	--	--	--
Grant	--	--	--	--	--	--
Kittitas	--	--	--	--	--	--
Lincoln	1	1	--	--	--	--
Okanogan	8	7	1	--	--	--
Yakima	5	4	1	--	--	--
Total	17	14	2	--	1	--
Inland Empire						
Asotin	2	2	--	--	--	--
Columbia	1	1	--	--	--	--
Ferry	2	2	--	--	--	--
Garfield	--	--	--	--	--	--
Pend Oreille	5	3	--	--	2	--
Spokane	4	3	--	1	--	--
Stevens	17	11	1	--	2	--
Walla Walla	4	2	--	2	--	--
Whitman	--	--	--	--	--	--
Total	35	24	1	3	4	--
Total, State	549	169	27	21	195	124
						13

¹Each pulping process at a multiplant location is considered an individual mill

²Represents the number of identifiable operations involved in the export trade

WASHINGTON SUMMARY, 1982

Table 2 Primary wood consumption by type of material, area and industry

Economic area and industry	Roundwood				
	All roundwood	Sound logs	Utility logs	Other ¹	Residue ²
	--Thousand board feet, Scribner Log rule--				Bone dry tons
Puget Sound					
Lumber	600,875	564,380	36,495	500	--
Veneer & plywood	66,062	59,088	6,974	--	--
Pulp & board	199,204	1,040	198,164	--	1,538,887
Shake & shingle	24,905	20,742	4,163	3,315	--
Export	904,747	898,191	6,556	--	--
Pole, post & piling	6,872	6,872	--	--	--
Total	1,802,665	1,550,313	252,352	3,815	1,538,887
Olympic Peninsula					
Lumber	693,822	582,373	111,449	458	--
Veneer & plywood	66,724	65,622	1,102	--	--
Pulp & board	207,451	84,422	123,029	--	847,716
Shake & shingle	55,035	51,552	3,483	19,456	--
Export	607,687	604,775	2,912	535	--
Pole, post & piling ³	--	--	--	--	--
Total	1,630,719	1,388,744	241,975	20,449	847,716
Lower Columbia					
Lumber	469,258	453,447	15,811	424	--
Veneer & plywood	107,111	99,393	7,718	--	--
Pulp & board ⁴	105,228	11,188	94,040	--	3,162,763
Shake & shingle	15,863	15,037	826	602	--
Export	621,915	621,660	• 255	--	--
Pole, post & piling ³	7,570	7,509	61	--	--
Total	1,326,945	1,208,234	118,711	1,026	3,162,763
Central Washington					
Lumber	204,955	199,463	5,492	5,254	--
Veneer & plywood ⁵	91,981	90,366	1,615	--	--
Pulp & board	--	--	--	--	--
Shake & shingle ⁵	270	270	--	237	--
Export	--	--	--	--	--
Pole, post & piling	--	--	--	--	--
Total	297,206	290,099	7,107	5,491	--
Inland Empire					
Lumber	159,375	156,800	2,575	--	--
Veneer & plywood ⁵	--	--	--	--	--
Pulp & board ⁴	--	--	--	--	--
Shake & shingle ⁵	--	--	--	--	--
Export	--	--	--	--	--
Pole, post & piling	2,583	1,481	1,102	--	--
Total	161,958	158,281	3,677	--	--
Total, State					
Lumber	2,128,285	1,956,463	171,822	6,636	--
Veneer & plywood	331,878	314,469	17,409	--	--
Pulp & board	511,883	96,650	415,233	--	5,549,366
Shake & shingle	96,073	87,601	8,472	23,610	--
Export	2,134,349	2,124,626	9,723	535	--
Pole, post & piling	17,025	15,862	1,163	--	--
Total	5,219,493	4,595,671	623,822	30,781	5,549,366

¹ Includes peeler cores, lumber and cants used by sawmills (converted to log scale assuming 30 percent overrun), blocks, boards, bolts used by shake and shingle mills, and miscellaneous peeled products used by pole, post, and piling mills

² Includes residues from the sawmill, veneer and plywood, and shake and shingle industries, plus chips from roundwood chipping plants, and wastepaper

³ Olympic Peninsula and Lower Columbia combined to avoid disclosure

⁴ Lower Columbia and Inland Empire combined to avoid disclosure

⁵ Inland Empire and Central Washington combined to avoid disclosure

WASHINGTON SUMMARY, 1982

**Table 3 Log flows to mills by state or province of log origin, area and industry
(Thousand board feet, Scribner log rule)**

Economic area and industry	Origin					
	All	Washington	Oregon	Idaho	British Columbia	Other
Puget Sound						
Lumber	600,874	600,314	176	--	385	--
Veneer & plywood	66,062	64,462	1,600	--	--	--
Pulp & board	199,204	176,469	--	2,383	10,176	10,176
Shake & shingle	24,905	22,518	--	--	2,287	100
Export	904,747	859,845	--	--	44,902	--
Pole, post & piling	6,872	6,733	66	--	--	73
Total	<u>1,802,665</u>	<u>1,730,341</u>	<u>1,842</u>	<u>2,383</u>	<u>57,750</u>	<u>10,349</u>
Olympic Peninsula						
Lumber	693,822	688,057	3,865	--	1,900	--
Veneer & Plywood	66,724	66,724	--	--	--	--
Pulp & board	207,451	204,946	--	--	2,505	--
Shake & shingle	55,035	54,875	8	--	152	--
Export	607,687	607,013	251	--	423	--
Pole, post & piling	4,327	4,327	--	--	--	--
Total	<u>1,635,046</u>	<u>1,625,942</u>	<u>4,124</u>	<u>--</u>	<u>4,980</u>	<u>--</u>
Lower Columbia						
Lumber	469,258	405,230	34,028	--	--	30,000
Veneer & Plywood	107,111	105,451	1,660	--	--	--
Pulp & board ¹	105,228	67,084	23,065	3,511	11,568	--
Shake & shingle	15,863	15,863	--	--	--	--
Export	621,915	577,240	44,675	--	--	--
Pole, post & piling	3,243	2,671	572	--	--	--
Total	<u>1,322,618</u>	<u>1,173,539</u>	<u>104,000</u>	<u>3,511</u>	<u>11,568</u>	<u>30,000</u>
Central Washington						
Lumber	204,955	204,955	--	--	--	--
Veneer & plywood ²	91,981	91,981	--	--	--	--
Pulp & board	--	--	--	--	--	--
Shake & shingle ²	270	270	--	--	--	--
Export	--	--	--	--	--	--
Pole, post & piling	--	--	--	--	--	--
Total	<u>297,206</u>	<u>297,206</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>
Inland Empire						
Lumber	159,375	126,914	19,038	13,423	--	--
Veneer & Plywood ²	--	--	--	--	--	--
Pulp & board ¹	--	--	--	--	--	--
Shake & shingle ²	--	--	--	--	--	--
Export	--	--	--	--	--	--
Pole, post & piling	2,583	2,583	--	--	--	--
Total	<u>161,958</u>	<u>129,497</u>	<u>19,038</u>	<u>13,423</u>	<u>--</u>	<u>--</u>
Total, State						
Lumber	2,128,285	2,025,470	57,107	13,423	2,285	30,000
Veneer & Plywood	331,878	328,618	3,260	--	--	--
Pulp & board	511,883	448,499	23,065	5,894	24,249	10,176
Shake & shingle	96,073	93,526	8	--	2,439	100
Export	2,134,349	2,044,098	44,926	--	45,325	--
Pole, post & piling	17,025	16,314	638	--	--	73
Total	<u>5,219,493</u>	<u>4,956,525</u>	<u>129,004</u>	<u>19,317</u>	<u>74,298</u>	<u>40,349</u>

¹Inland Empire combined with Lower Columbia to avoid disclosure

²Inland Empire combined with Central Washington to avoid disclosure

WASHINGTON SUMMARY, 1982

**Table 4 Log flows to mills by county and out-of-state origins, and by area and county of use
(Thousand board feet, Scribner log rule)**

Economic area and county of use	Total	Economic area and county of origin						
		Puget Sound						
		Island and San Juan ¹	King	Kitsap	Pierce	Skagit	Snohomish	Whatcom
Puget Sound								
Island/San Juan ¹	4,993	4,948	--	--	--	--	--	45
King	137,838	--	90,089	--	15,811	570	13,167	--
Kitsap/Pierce ¹	722,480	--	140,251	24,587	184,225	2,232	4,856	1,737
Skagit	41,456	40	187	--	--	18,318	6,424	11,022
Snohomish	828,844	667	55,403	282	10,255	202,928	289,270	49,110
Whatcom	67,054	--	6,318	--	5,679	31,869	6,120	15,321
Total	1,802,665	5,655	292,248	24,869	215,970	255,917	319,837	77,235
Olympic Peninsula								
Clallam	230,150	75	--	--	--	2,223	222	--
Grays Harbor/Jefferson ¹	825,265	--	2,168	400	904	12,817	299	--
Lewis	195,446	--	2,000	--	4,045	--	--	--
Mason	220,676	--	--	--	--	--	--	--
Pacific	55,941	--	--	--	--	--	--	--
Thurston	107,568	--	415	--	59,897	580	--	--
Total	1,635,046	75	4,583	400	64,846	15,620	521	--
Lower Columbia								
Clark	119,339	--	--	--	16	--	--	--
Cowlitz	1,051,528	--	630	560	560	4,011	--	--
Klickitat/Skamania ¹	149,620	--	--	--	--	--	--	--
Wahkiakum	1,538	--	--	--	--	--	--	--
Total	1,322,025	--	630	560	576	4,011	--	--
Central Washington								
Chelan/Lincoln/ Okanogan/Yakima	261,694	--	890	--	--	--	--	--
Total	261,694	--	890	--	--	--	--	--
Inland Empire								
Asotin/ Walla Walla ¹	45,745	--	--	--	--	--	--	--
Columbia/Ferry ¹	34,222	--	--	--	--	--	--	--
Pend Oreille	7,119	--	--	--	--	--	--	--
Spokane	23,763	--	--	--	--	--	--	--
Stevens	87,214	--	--	--	--	--	--	--
Total	198,063	--	--	--	--	--	--	--
Total, State	5,219,493	5,730	298,351	25,829	281,392	275,548	320,358	77,235

¹Combined to avoid disclosure

Table 4 (Continued) Log flows to mills by county and out-of-state origins, and by area and county of use (Thousand board feet, Scribner log rule)

Economic area and county of origin											
Olympic Peninsula Lower Columbia											
Clallam	Grays Harbor	Jefferson	Lewis	Mason	Pacific	Thurston	Clark	Cowlitz	Klickitat	Skamania	Wakiakum
--	--	5,130	--	1,639	--	--	570	--	--	--	--
2,850	9,423	21,427	167,257	58,283	372	46,744	3,060	3,974	--	30	--
1,338	--	--	--	--	--	--	--	--	--	--	--
15,389	7,188	11,652	72,810	6,920	4,176	12,807	--	--	--	5,123	--
1,747	--	--	--	--	--	--	--	--	--	--	--
21,324	16,611	38,209	247,509	66,842	4,548	60,121	3,060	3,974	--	5,153	--
<hr/>											
171,373	4,618	48,710	--	--	--	--	--	--	--	--	--
13,863	521,103	131,070	5,563	19,803	92,271	19,266	--	19	--	8	4,106
760	4,199	760	109,973	--	3,900	18,544	2,907	11,182	--	29,411	2,000
1,120	7,243	1,680	1,120	207,737	38,504	1,766	--	--	--	--	--
--	10,448	--	2,854	--	--	--	--	--	--	--	4,135
887	6,404	720	12,725	8,141	--	14,865	--	1,797	--	--	--
188,003	554,015	182,940	132,235	235,681	134,675	54,441	2,907	12,998	--	29,419	10,241
<hr/>											
--	2,674	4,011	114,046	--	4,760	16	6,621	35,289	--	32,473	7,552
--	2,689	--	--	--	3,484	5,563	12,507	660,825	547	39,524	85,665
--	--	234	--	--	90	--	--	--	61,393	63,976	--
--	2,674	2,923	4,011	114,350	--	8,334	5,579	19,128	696,114	61,940	135,973
<hr/>											
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	22,153	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
212,001	573,549	225,160	494,094	302,523	147,557	120,141	25,095	713,086	84,093	170,545	104,672

WASHINGTON SUMMARY, 1982

Table 4 (Continued) Log flows to mills by county and out-of-state origins, and by area and county of use (Thousand board feet, Scribner log rule)

Economic area and county of use	Central Washington					Economic area and	
	Chelan	Douglas	Kittitas	Lincoln	Okanogan	Yakima	
Puget Sound							
Island/San Juan ¹	--	--	--	--	570	--	--
King	--	--	27,401	--	--	--	--
Kitsap/Pierce ¹	1,067	--	--	--	900	--	--
Skagit	--	--	--	--	--	--	--
Snohomish	26,972	--	14,349	--	--	--	--
Whatcom	--	--	--	--	--	--	--
Total	28,039	--	41,750	--	1,470	--	--
Olympic Peninsula							
Clallam	--	--	1,204	--	--	--	--
Grays Harbor/Jefferson ¹	--	--	--	--	--	--	--
Lewis	--	--	--	--	--	--	--
Mason	--	--	--	--	--	--	--
Pacific	--	--	--	--	--	--	--
Thurston	1,137	--	--	--	--	--	--
Total	1,137	--	1,204	--	--	--	--
Lower Columbia							
Clark	--	--	--	--	--	--	--
Cowlitz	--	--	--	--	--	--	--
Klickitat/Skamania ¹	--	--	--	--	--	22,203	--
Wahkiakum	--	--	--	--	--	--	--
Total	--	--	--	--	--	22,203	--
Central Washington							
Chelan/Lincoln/ Okanogan/Yakima ¹	34,925	--	29,593	--	88,213	85,579	
Total	34,925	--	29,593	--	88,213	85,579	
Inland Empire							
Asotin/Walla Walla ¹	--	--	--	--	5,550	--	--
Columbia/Ferry ¹	--	--	--	--	--	--	--
Pend Oreille	--	--	--	--	--	--	--
Spokane	--	--	--	28	--	--	--
Stevens	--	--	--	28	5,550	--	--
Total	--	--	--	28	5,550	--	--
Total, State	64,101	--	72,547	28	95,233	107,782	

¹Combined to avoid disclosure

Table 4 (Continued) Log flows to mills by county and out-of-state origins, and by area and county of use (Thousand board feet, Scribner log rule)

<u>county of origin</u>									
Inland Empire									<u>Out-of-State origin</u>
Asotin	Columbia	Ferry	Garfield	Pend Oreille	Spokane	Stevens	Walla Walla		
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	24,216	
--	--	--	--	--	--	--	--	4,565	
--	--	--	--	--	--	--	--	43,543	
--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	72,324	
<hr/>									
--	--	--	--	--	--	--	--	2,929	
--	--	--	--	--	--	--	--	401	
--	--	--	--	--	--	--	--	5,765	
--	--	--	--	--	--	--	--	10	
--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	9,105	
<hr/>									
--	--	--	--	--	--	--	--	32,308	
--	--	--	--	--	--	--	--	114,232	
--	--	--	--	--	--	--	--	2,048	
--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	148,588	
<hr/>									
--	--	--	--	--	--	--	--	--	
--	--	341	--	--	--	--	--	--	
<hr/>									
7,059	2,846	--	2,943	--	--	--	2,869	30,028	
--	222	25,400	--	--	--	3,050	--	--	
--	--	--	--	4,745	1,040	1,214	--	120	
--	--	33,051	--	55	20,857	47	--	2,804	
--	--	--	--	8,386	1,413	44,336	--	--	
7,059	3,068	58,451	2,943	13,186	23,310	48,647	2,869	32,952	
7,059	3,068	58,792	2,943	13,186	23,310	48,647	2,869	262,969	

WASHINGTON SUMMARY, 1982

Table 5 Log flows to mills from National Forests, by area and industry
(Thousand board feet, Scribner log rule)

Economic Area ¹	All National Forest	Mount Baker- Snoqualmie	Colville	Gifford Pinchot	Okanogan	Olympic	Wenatchee	Umatilla	Out-of-State National Forest
Puget Sound	252,085	196,898	---	2,558	1,363	13,753	5,271	--	32,242
Olympic Peninsula	259,018	362	--	69,498	--	189,158	--	--	--
Lower Columbia	147,256	--	--	141,809	--	6	--	--	5,441
Central Washington	138,583	5,211	223	--	31,357	--	101,792	--	--
Inland Empire	39,274	--	21,954	--	10,466	--	--	6,854	--
Total, State	836,216	202,471	22,177	213,865	43,186	202,917	107,063	6,854	37,683
Industry									
Lumber	571,469	130,357	20,271	107,530	27,339	183,483	91,494	6,854	4,141
Veneer & Plywood	137,840	29,900	1,420	60,086	15,847	14,348	14,938	--	1,301
Pulp & board	91,682	33,440	444	45,688	--	835	372	--	10,903
Shake & shingle	13,324	8,774	--	243	--	4,048	259	--	21,338
Export	21,338	--	--	--	--	--	--	--	--
Pole, post & piling	563	--	42	318	--	203	--	--	--
Total, All Industries	836,216	202,471	22,177	213,865	43,186	202,917	107,063	6,854	37,683

¹Note: Combinations made in Table 7 are also used here to avoid disclosure

²No log receipts into Washington reported from the Kaniksu National Forest in 1982.